August 10, 1987

TO: Frank Filas, Permit Lead

FROM: David M. Wham, Reclamation Hydrologist

RE: MR-1 Application Review, Utelite Mine, M/043/004, Summit

County

## HYDROLOGY CONCERNS

Both the channel and floodplain of Three Mile Creek have been severely restricted by development of roads and pads at the Utelite Mine. Development of a waste rock pile/pad has created a small pond in the stream channel. The stream channel below the pond shows obvious signs of downcutting and lateral erosion and channel bank stability will continue to be a problem at the site.

While the current configuration is less than ideal, operation of a mine in this narrow canyon makes it is difficult if not possible to avoid some encroachment. While I believe that restablishment of the stream is not feasible or advisable at this time, I strongly recommend that no further constriction of the stream channel be allowed. The operator should make every effort to keep additional material out of the channel.

Upon completion of mining at the site, all material should be removed from the stream such that the channel configuration (including the flood plain) is restored to its pre-disturbed condition. The pre-disturbed configuration can be estimated by using the up and downstream reaches of the stream as a guide.

I also recommend that a suitable berm be placed in a manner which stops all disturbed area runoff from entering the stream.

GENERAL COMMENTS

## Question 23, Page 4

Paragraph 2: "...Recontour the waste dump area, stabilize and reseed this season." The maximum slope for regrading needs to be specified.

Frank Filas August 10, 1987 Page 2

Paragraph 3: Is this statement a request for highwall/slope varience. Is no regrading planned?

Paragraph 4: Is this a request for highwall varience? Can the highwall be reduced reasonably and economically? I have a hard time understanding what commitment is being made with the statement "less angle of repose" as there is only one angle of repose for a given material.

I feel that the reclamation plan is too general to allow unambiguous interpretation at time of final reclamation. However, as you have suggested, perhaps these commitments might be best handled through permit stipulations.

## Question 24, Page 5

Paragraph 2: What is meant here? That the pond will be filled in and a reconstructed (unrestricted) drainage will be reestablished here? This commitment needs clarification.

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